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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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In the Matter of )

Federal-State Joint Board on )  
Universal Service )

CC Docket No. 96-45

REPLY COMMENTS OF MOTOROLA, INC.

Mary E. Brooner  
Manager, Telecommunications Strategy and  
Regulation  
Motorola, Inc.  
1350 I Street, N.W., Suite 400  
Washington, D.C. 20005

(202) 371-6900

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**REPLY COMMENTS OF MOTOROLA, INC.**

**I. INTRODUCTION AND SUMMARY**

Motorola, Inc. ("Motorola")<sup>1</sup> hereby submits its reply to the opening comments filed in response to the Federal-State Joint Board's *Recommended Decision* in the above-captioned docket.<sup>2</sup> Although Motorola generally applauds most aspects of the *Recommended Decision*, the company is concerned that the Joint Board's proposed universal service program does not fully take into account the critical role of wireless communications offerings in achieving Congress's universal service goals. Accordingly, Motorola is submitting this reply to augment the record on the existing and future contributions of wireless operations in facilitating nationwide, affordable

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<sup>1</sup> Motorola is one of the world's leading providers of components and services for wireless communications, semiconductors, and advanced electronic systems. The company's major equipment businesses include paging and data communications, cellular telephone, two-way radio, personal communications services, automotive, defense, and space electronics, and computers. Motorola semiconductors power communications devices, computers, and other products.

<sup>2</sup> *Federal-State Joint Board on Universal Service*, FCC 96J-3, (Recommended Decision) (Nov. 8, 1996) [hereinafter *Recommended Decision*], *Errata*, FCC 96J-3 (Nov. 19, 1996). In a Public Notice dated November 18, 1996, the Commission solicited commenters' views on the *Recommended Decision*. See *Common Carrier Bureau Seeks Comment on Universal Service*

(Continued...)

access to telecommunications services. In addition, as detailed below, Motorola endorses the following specific recommendations advanced by the opening commenters:

- To avoid unnecessarily harming the level of competition in the telecommunications marketplace, the Commission must take additional steps to ensure that the universal service fund is carefully targeted and narrowly drawn toward the goal of providing affordable access. To this end, Motorola agrees with those commenters who advocate that support payments should be limited to a single line or connection to a subscriber's primary residence, as well as those who urge the Commission to exclude internal connections from the scope of funding for educational institutions and libraries.
- To achieve Congress's universal service goals in a manner that is cost effective and pro-competitive, the Commission must ensure that a carrier's eligibility to receive universal service support funds is based on technology neutral criteria.
- The Commission must adopt a contribution methodology that is competitively neutral and that takes into account the competitive concerns raised by the wireless community.

## II. BACKGROUND

On November 7, 1996, the Federal-State Joint Board adopted its *Recommended Decision* proposing rules and policies aimed at establishing a universal service support system that will "ensure that the goals of affordable service and access to advanced services are met by means that enhance, rather than distort, competition."<sup>3</sup> Major recommendations advanced by the Joint Board include suggestions that: (1) all universal service policies be based on the principles enumerated in Section 254(b) of the Telecommunications Act of 1996 ("1996 Act") and the

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*Recommended Decision*, DA 96-1891 (Nov. 18, 1996).

concept of "competitive neutrality;"<sup>4</sup> (2) support for high cost areas be based on forward looking economic cost levels;<sup>5</sup> and (3) any telecommunications carrier that meets the eligibility criteria delineated in the 1996 Act – regardless of the technology used – be eligible to receive universal service support.<sup>6</sup>

Motorola supports the Joint Board's efforts to identify rule and policy changes necessary to ensure that the goals of affordability and access to advanced telecommunications services are realized through means that enhance rather than distort competition. At the same time, however, Motorola shares the concerns of several commenters who suggest that, in order to achieve the goal of broadened and affordable access in a manner that promotes competition, it is essential for the Commission to formulate universal service support mechanisms that: (1) recognize the critical role of wireless telecommunications services, products, and equipment in achieving Congress's universal service goals; (2) carefully target and narrowly circumscribe the total amount of the universal service fund; (3) base eligibility to receive universal service support on technologically neutral criteria; and (4) establish a competitively neutral methodology for determining payments by telecommunications carriers into the universal service fund.

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<sup>4</sup> *Id.*, ¶ 3.

<sup>5</sup> *Id.*, ¶ 184.

<sup>6</sup> *Id.*, ¶ 155.

### **III. THE COMMISSION'S UNIVERSAL SERVICE SUPPORT MECHANISM MUST RECOGNIZE THE CRITICAL ROLE WIRELESS TELECOMMUNICATIONS SERVICES, PRODUCTS, AND EQUIPMENT PLAY IN ADVANCING CONGRESS'S UNIVERSAL SERVICE GOALS**

#### **A. The Record Indicates That Wireless Services, Products, and Equipment Offer a Cost Effective Means for Facilitating Nationwide, Universal Service**

As discussed in detail in the *Recommended Decision*, Congress's primary objective in adopting Section 254 of the 1996 Act was to facilitate revisions to the Commission's existing universal service support mechanisms that will ensure quality telecommunications services at affordable rates for all consumers, in all regions of the nation, through equitable, nondiscriminatory, and pro-competitive means.<sup>7</sup> As noted by a number of opening commenters, wireless technologies, products, and services offer a capable, efficient, and cost effective method for achieving this goal. Accordingly, it is essential that the Commission's universal service policies take into account the unique and critical contributions of wireless offerings.

For example, in its comments, the Cellular Telecommunications Industry Association ("CTIA") underscores Congress's recognition that "the introduction of competition and new technologies, including wireless services, could eventually reduce the overall cost of providing universal service support."<sup>8</sup> Similarly, Nextel Communications, Inc. ("Nextel") points out that, as a nationwide, commercial mobile radio service ("CMRS") operator, it is "well-positioned to

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<sup>7</sup> *Id.* See also 47 U.S.C. § 254(a)(1) (1996); Telecommunications Act of 1996, H. Conf. Rep. No. 104-458, at 131 (1996) (Joint Explanatory Statement) (directing the Joint Board to "thoroughly review the existing system of [f]ederal universal service support") [hereinafter *Joint Explanatory Statement*].

<sup>8</sup> Comments of the Cellular Telecommunications Industry Association ("CTIA"), at 3.

further the achievement of Congress's goal to make telecommunications services and advanced services universally available to the American public, regardless of geographic location and economic status."<sup>9</sup> In this connection, Nextel explains that, "[i]n many circumstances, wireless service providers offer the only cost-efficient alternative for the delivery of communications services in rural and high cost regions of the country."<sup>10</sup> Similarly, Nextel states that, "with the development of wireless local loop capabilities and the increased competitive pricing of wireless service offerings, CMRS is quickly becoming a preferred choice among many Americans seeking to satisfy their need for affordable, ubiquitous and dependable communications services."<sup>11</sup> In an era of growing demand for workforce mobility and increased productivity, the costs associated with moves, additions, and changes to wired networks are significant. Alterations to wired networks also implicate soft costs as a result of time lost during the transition period. Wireless solutions, by their nature, greatly reduce expenditures associated with installation, relocation, and modification of wired networks, as well as costs related to maintenance of outside plant wiring.

The opening comments also indicate that wireless services, products, and equipment are an efficient and cost effective method for providing rural health care facilities, educational institutions, and libraries access to advanced telecommunications and information services. For

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<sup>9</sup> Comments of Nextel Communications, Inc. ("Nextel"), at 1.

<sup>10</sup> *Id.* at 1-2. *See also* Comments of the Personal Communications Industry Association ("PCIA"), at 10 ("PCIA believes that wireless technologies can often provide sparsely populated and ruggedly contoured areas of the country with less expensive access to telecommunications than wireline technologies").

<sup>11</sup> Comments of Nextel, at 2.

instance, AMSC Subsidiary Corporation ("AMSC") indicates that its Mobile Satellite Service ("MSS") system has facilitated the effective delivery of emergency medical care to injured persons in remote and rural areas by allowing two-way mobile communications capability in regions where terrestrial technologies are unavailable.<sup>12</sup> In addition, it is generally agreed that a primary barrier to access by educational institutions and libraries is the cost of wiring buildings.<sup>13</sup> By their very nature, wireless services, products, and equipment – which enable access to advanced telecommunications services without the need for wiring of buildings – help eliminate this impediment in a cost effective manner.<sup>14</sup> Moreover, as recently observed by Commissioner Chong, wireless services enable electronic mail, data sharing between schools, desktop Internet access, and the like "without having a tangle of wires around the room or having to string wires through asbestos-filled walls."<sup>15</sup> Wireless solutions also improve the efficiency with which teachers, students, librarians, and library patrons access and exchange information. In addition, wireless offerings permit the transmittal of such information anytime, to and from anywhere.

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<sup>12</sup> Comments of AMSC Subsidiary Corporation ("AMSC"), at 2-3.

<sup>13</sup> *See Recommended Decision*, ¶ 469 and accompanying footnotes.

<sup>14</sup> Significantly, use of wireless alternatives not only eliminates the need for wiring within buildings but also the need to run wires and cables to buildings.

<sup>15</sup> Commissioner Rachelle Chong, Douglas Policy Institute National Issues Forum: Telecommunications and Education, Washington, D.C. "An Information Renaissance," (May 15, 1996).

**B. Motorola Has Many Existing and Planned Products That Will Provide Important Technological Capabilities for Addressing America's Universal Service Goals**

Consistent with the above, Motorola offers a substantial number of existing products as well as others still in the planning stages that will provide important technological capabilities for addressing the country's universal service needs. In particular, Motorola has designed products and equipment to be used by CMRS operators, such as narrowband PCS, paging, SMR, broadband PCS and cellular, all of which have a significant potential to supplement or replace traditional wireline offerings. Michele Farquhar, Chief of the Wireless Telecommunications Bureau, recognized this potential in remarking recently that CMRS services offer a "natural, lower cost alternative to wireline service" that is "especially attractive in bringing service to customers with existing structures – such as schools – where wired alternatives could be prohibitively expensive and disruptive, due to the age of and materials used in existing buildings."<sup>16</sup> In addition, CMRS offerings present a cost effective means for delivering communications services to subscribers in rural or densely populated urban areas where costs of installing or replacing wireline plant are prohibitive.<sup>17</sup> In each of these respects, CMRS services will play a significant role in fulfilling Congress's universal service goals.

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<sup>16</sup> Michele C. Farquhar, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, *Spectrum Policies That Promote Competition*, at 9 (Nov. 20, 1996).

<sup>17</sup> See *id.* In addition, the Commission has repeatedly stated that it expects PCS providers to offer a broad array of services, including offerings that could extend, replace, or compete with wireline local exchange service. See, e.g., *Amendment of the Commission's Rules To Establish New Personal Communications Services*, 7 FCC Rcd 5676, 5682 (1992). Similarly, in its recent order permitting CMRS licensees to offer fixed services, the Commission cited with approval commenters' suggestions that fixed wireless offerings are capable of supplementing or replacing

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Similarly, as discussed above, satellite transmissions are a cost effective way for facilitating medical and other communications in remote and hard to reach regions. In addition to existing satellite systems, Motorola later this month is launching the *Iridium* satellite system, which will eventually be capable of transmitting voice, data, facsimile, and paging messages through space to anyone from anywhere on earth. In time, *Iridium* and other global systems like it will have a place in serving the communications needs of schools, libraries, and individual persons who live or work in hard to reach areas.

Finally, wireless local area networks ("wireless LANs") offer another effective alternative. As compared to "wired LANs," wireless LANs permit computing devices to communicate through the use of radio signals rather than hard wiring. The Commission has recently acknowledged that wireless LANs are an efficient way to "overcome the high cost, delay, and difficulty often encountered in installing, expanding, or changing hard-wired LANs" and to "overcome older design and construction techniques that did not contemplate the complex communication wiring otherwise needed to support the electronic office."<sup>18</sup>

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wireline services in the following ways, among others: (1) fixed wireless offerings can be imbedded into PBXs and local area networks to permit continued service even when wireline service is interrupted due to weather and other emergencies; (2) fixed wireless offerings help facilitate more efficient call routing; (3) fixed wireless links can be used to provide local loop services to apartment buildings, office buildings, and older homes where rewiring costs are typically very high; and (4) fixed wireless access services coming into homes and residences can offer an alternative to end-to-end wiring by the carrier from the switch to the end user. *Amendment of the Commission's Rules To Permit Flexible Service Offerings in the Commercial Mobile Radio Services*, 11 FCC Rcd 8965, 8973-74 (1996).

<sup>18</sup> *Federal Access To Low Power 18 GHz Private Operational Fixed Microwave Systems*, 8 FCC Rcd 3210 (1993). Wireless LANs have become an integral component of the communications systems used by hospitals and other businesses where employees are kept on their feet and are required to move throughout one or more buildings on a typical day. See Alexa (Continued...)

#### **IV. THE UNIVERSAL SERVICE FUND MUST BE CAREFULLY TARGETED AND NARROWLY DRAWN**

##### **A. Motorola Shares the Common Concern Reflected in a Broad Range of Comments That the Universal Service Fund Must Be Carefully Targeted and Narrowly Drawn**

Motorola agrees with a broad range of commenters who urge the Commission to take additional steps to ensure that the overall level of funding for the universal service support mechanisms is carefully targeted and narrowly drawn consistent with the goal of providing affordable access to telecommunications services. Accordingly, Motorola urges the Commission to: (1) limit support payments to a single line or connection to a customer's primary residence; (2) endorse the Joint Board's recommendation that the FCC work with state regulatory agencies to develop an adequate proxy model for determining the cost of providing supported services to particular areas; (3) actively explore the possibility of using competitive bidding to determine the level of support for high cost areas and adopt the Joint Board's recommendation that schools and libraries be required to seek competitive bids for services eligible for discounts under Section 254(h); and (4) exclude internal connections from the scope of funding for educational institutions and libraries.

As noted by PCIA, funding of universal service at levels in excess of the minimum required to achieve Congress's goals will impose excessive charges on telecommunications

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A. Dell'Acqua and John F. Mazzaferro, *Wireless Communications: Industry Trend or Event*, Telecommunications, (March, 1996). In addition, wireless LANs offer an effective, cost efficient method for linking students and faculty through electronic mail, data sharing, and other similar processes.

carriers and members of the public, which in turn will result in "increased numbers of residential subscribers finding telecommunications service to be no longer affordable" and will "harm[] competition in the telecommunications marketplace."<sup>19</sup>

Several commenters echo concerns voiced by members of the Joint Board who similarly caution that funding universal service support at unnecessarily high levels is likely to have an adverse impact on members of the public, particularly low income users of telecommunications service, and may hinder competition in the telecommunications marketplace. In particular, various commenters underscore that, in her separate statement accompanying the Joint Board's *Recommended Decision*, Commissioner Chong expresses serious concerns about the size of the universal service program and highlights the need for carefully balancing the advancement of universal service goals against the impact that a huge fund may have on the bills of telecommunications users, particularly low income individuals.<sup>20</sup> Similarly, various commenters repeat state Commissioner Shoenfelder's warning that:

... a federal universal service fund that taxes consumers billions of dollars a year is not only inconsistent with Congressional intent, but could be extremely harmful nationwide to consumers. By supporting services at this level, average rates for all consumers may increase and it may harm competition, which is the principal objective of the law.<sup>21</sup>

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<sup>19</sup> Comments of PCIA, at 6-7; *See also* Comments of American Personal Communications ("APC"), at 5-6; Comments of Cox Communications, Inc. ("Cox"), at 3-4; Comments of Sprint Corporation ("Sprint"), at 2-3; Comments of AirTouch Communications, Inc. ("AirTouch"), at 3-4;

<sup>20</sup> *See, e.g.*, Comments of PCIA, at 6-7; Comments of Sprint, at 13. *See also Recommended Decision*, Separate Statement of Commissioner Rachelle B. Chong, at 14.

<sup>21</sup> *See, e.g.*, Comments of PCIA, at 7. *See also Recommended Decision*, Separate Statement of Commissioner Laska Schoenfelder, at 3.

**B. Motorola Supports Several Specific Proposals for Ensuring That the Universal Service Fund Is Properly Defined**

In light of the concerns detailed above, Motorola endorses several specific proposals advanced by opening commenters as means to guarantee that the universal service fund is properly defined. In particular, Motorola agrees with those commenters who advocate that support payments should be limited to a single line or connection to a customer's primary residence.<sup>22</sup> As indicated in the comments, extension of support to second residential lines significantly increases the universal service fund without promoting universal service goals.<sup>23</sup>

In addition, Motorola supports the Joint Board's recommendation that the Commission work with state regulatory bodies to develop an adequate proxy model to be used to determine the cost of providing supported services to particular areas and to calculate the amount of support, if any, carriers should receive for providing designated services.<sup>24</sup> The Commission recently scheduled two workshops aimed at encouraging widespread participation in this process

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<sup>22</sup> See, e.g., Comments of PCIA, at 12-13; Comments of APC, at 5 (suggesting that, to "lead to a more efficient and sound funding mechanism," the FCC should not extend support to second lines); Comments of PageMart, Inc. ("PageMart"), at 6 ("universal service support [should be] provided for a single connection to a customer's primary residence"); Comments of Ameritech, at 6 ("universal service support should be provided to residential customers but limited to a single connection to the subscriber's principle residence"); Comments of Cox, at 4 ("the Commission should affirm the recommendation that second residential or business telephone lines should not be eligible for universal service subsidies").

<sup>23</sup> Comments of Cox, at 4; *see also* Comments of Ameritech, at 6. The problems of identifying second lines, raised by several commenters must, of course, be addressed in this context.

<sup>24</sup> See *Recommended Decision*, at ¶ 268.

by telecommunications carriers and other interested parties.<sup>25</sup> Motorola commends the Commission's initiative in this respect and urges the agency to convene additional programs, as needed, to facilitate development of an accurate and effective universal service cost proxy model.<sup>26</sup>

Finally, Motorola agrees with those commenters who endorse the Joint Board's suggestion that use of a competitive bidding system could offer significant advantages over other mechanisms in determining the level of universal service support for high cost areas. As noted by the Joint Board, competitive bidding "holds the promise of using a market-based approach to establishing the level of universal service support for any given area."<sup>27</sup> A competitive bidding system could reduce the role of regulators in determining the costs of providing universal service once an area is subject to auctions and allow the support level to reflect bidding carriers' assessments of the costs of serving the market in question as well as their estimation of revenues, including current and future follow-on net revenues, which may be difficult for regulators to predict.<sup>28</sup> This would result in increased accuracy and, as discussed by the Joint Board, could reduce the amount of overall support needed for universal service by creating incentives for

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<sup>25</sup> See *Federal-State Joint Board on Universal Service: Staff To Hold Workshops on Cost Proxy Models on January 14-15, 1997*, CC Docket No. 96-45, DA 96-2091, (Dec. 12, 1996) (Public Notice).

<sup>26</sup> In its comments, PCIA advances a similar recommendation. See Comments of PCIA, at 11.

<sup>27</sup> *Recommended Decision*, ¶ 342.

<sup>28</sup> *Id.*

efficiency and by converting gains from new technologies into universal service cost savings.<sup>29</sup>

In light of these potential benefits, Motorola agrees with various commenters who request that the Commission "actively explore the possibility of using competitive bidding in the universal service context."<sup>30</sup> In addition, Motorola supports the Joint Board's recommendation that schools and libraries be required to seek competitive bids for all services eligible for Section 254(h) discounts.<sup>31</sup> As noted by the Joint Board, a requirement that schools and libraries solicit competitive bids will help ensure that these entities "have both the opportunity and the incentive to secure the lowest price" in accordance with the competitive pressures of the marketplace.<sup>32</sup>

**C. The Commission Should Not Include Internal Connections Within the Scope of Funding for Schools and Libraries**

For various reasons, including the likely inflationary impact on the size of the universal service fund, the Commission should exclude internal connections from the scope of funding for educational institutions and libraries. Initially, as pointed out by a number of commenters, the Joint Board exceeded its legal authority in recommending that internal connections to classrooms and related hardware be included on the list of "services" eligible for universal service support.<sup>33</sup>

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<sup>29</sup> *Id.*, ¶ 343.

<sup>30</sup> Comments of PCIA, at 15. *See also* Comments of AirTouch, at 24; Comments of Ameritech, at 11; Comments of GTE Service Corporation ("GTE"), at 59-65; Comments of the General Services Administration ("GSA"), at 9-10; Comments of Sprint Spectrum, L.P. d/b/a Sprint PCS ("Sprint PCS"), at 4-5.

<sup>31</sup> *Recommended Decision*, ¶ 539.

<sup>32</sup> *Id.*, ¶¶ 536, 539. *See also* Comments of the Association for Local Telecommunications Services, at 13-15; Comments of BellSouth Corporation and Telecommunications Inc. ("BellSouth"), at 29-30; Comments of MCI Telecommunications Corp. ("MCI"), at 16-17.

<sup>33</sup> *See, e.g.*, Comments of AirTouch, at 18-21; Comments of PCIA, at 19-21; Comments of  
(Continued...)

Contrary to the Joint Board's recommendation, Section 254(h)(1)(B) of the Act, which delineates the scope of telecommunications carriers' obligations to provide universal service support to educational institutions and libraries, only contemplates the granting of discounts in connection with *telecommunications services* provided by such carriers.<sup>34</sup> Despite the Joint Board's attempt to include installation and maintenance of inside wiring and internal connections within the definition of "telecommunications services," Motorola agrees with the broad range of commenters who explain that the Joint Board's position is simply incorrect and cannot be reconciled with the language of the 1996 Act or longstanding Commission precedent.<sup>35</sup>

Moreover, the record reflects widespread agreement that inclusion of internal connections within the scope of programs eligible for universal service support is not in the public interest because it will substantially – and unnecessarily – increase the amount of the universal service fund. On this point, several commenters state that inclusion of internal connections will cause the fund to balloon to a level much higher than may be fiscally prudent, at the expense of all

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AT&T Corp. ("AT&T"), at 18-20; Comments of SBC Communications Inc. ("SBC"), at 45-46; Comments of Ameritech, at 18-19; Comments of GTE, at 89-94; Comments of MFS Communications Company, Inc. ("MFS"), at 30-32; Comments of BellSouth, at 26; Comments of the California Department of Consumer Affairs, at 23-26; Comments of Pacific Telesis Group ("PacTel"), at 44-47.

<sup>34</sup> See 47 U.S.C. § 254(h)(1)(B) (1996).

<sup>35</sup> See, e.g., Comments of AirTouch, at 18-19; Comments of Ameritech, at 18-19; Comments of AT&T, at 18-20; Comments of BellSouth, at 25-27; Comments of Citizens Utilities Company ("CUC"), at 15-16; Comments of GTE, at 89-97; Comments of MFS, at 30-31; Comments of PCIA, at 19-21; Comments of SBC, at 43-45; Comments of Sprint at 11-14; Comments of the United States Telephone Association ("USTA"), at 34-35; Comments of WorldCom, Inc. ("WorldCom"), at 28-29.

consumers of telecommunications services.<sup>36</sup> In addition, a number of commenters caution that discounts for internal connections are likely to skew the efficient working of the market by inducing a library or school to choose a less efficient internal connection alternative.<sup>37</sup> Motorola agrees with these concerns, which stem in significant part from the fact that the inclusion of internal connections in the universal service support program ignores the existence of cost effective wireless alternatives.

Finally, although the Joint Board maintains that internal connections must be eligible for universal service support in order for the rules to promote technological neutrality among wireline and wireless services,<sup>38</sup> the record indicates that, in point of fact, designating internal connections for support violates the principle of technological neutrality. In particular, as pointed out by GTE, inclusion of internal connections contravenes technological neutrality "by targeting a subsidy (inside wiring support) to a characteristic (wiring) unique to a particular technology (wireline services)."<sup>39</sup> Motorola agrees with this observation and with GTE's additional comment that different equipment and facility requirements "form the basis of

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<sup>36</sup> See, e.g., Comments of GTE, at 89-96; Comments of MFS, at 31. See also *Recommended Decision*, Separate Statement of Commissioner Rachelle B. Chong, at 6. Commissioner Chong cites reports estimating that the undiscounted cost of connecting public schools will be \$5.025 billion dollars initially, with an additional \$410 million per year for annual costs. *Id.*

<sup>37</sup> See, e.g., Comments of AirTouch, at 20-21; Comments of AT&T, at 20; Comments of PCIA, at 22-23. See also *Recommended Decision*, Separate Statement of Commissioner Rachelle B. Chong, at 6.

<sup>38</sup> See *Recommended Decision*, ¶ 482.

<sup>39</sup> Comments of GTE, at 95.

consumer decisions and the Commission is not required to wipe these away through universal service support" in order to achieve competitive and technological neutrality.<sup>40</sup>

**V. ELIGIBILITY TO RECEIVE UNIVERSAL SERVICE FUNDS SHOULD BE TECHNOLOGY NEUTRAL**

Motorola strongly supports the Joint Board's commitment to ensuring that a carrier's eligibility to receive universal service support funds is based on criteria that are technology neutral. As mentioned by PCIA, the Joint Board's efforts in this regard "reflect an acknowledgment that the telecommunications marketplace is rapidly changing, along with a recognition of the rapid development of technology."<sup>41</sup> PCIA further notes that:

. . . it is in the best interests of the public as well as the goal of minimization of the universal service fund levels to ensure that technologies and carriers that ultimately may be more cost effective have an opportunity to meet the universal service needs of segments of this country at the appropriate time.<sup>42</sup>

Motorola agrees with these observations and further submits that a technology neutral approach is absolutely critical to achievement of Congress's universal service goals in a manner that is cost effective and pro-competitive. In particular, as discussed in detail in Section III of this pleading, in numerous instances, wireless services constitute the most efficient means for ensuring that consumers in all areas have affordable access to advanced telecommunications services.<sup>43</sup> A technologically neutral approach will help ensure that wireless technologies are

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<sup>40</sup> *Id.* at 95-96.

<sup>41</sup> Comments of PCIA, at 23.

<sup>42</sup> *Id.*

<sup>43</sup> *See supra* pp. 3-8

used to meet universal service needs by guaranteeing that the universal service rules do not favor incumbent carriers of wireline technologies. Instead, all competitors using any technology to provide designated services will be equally able to provide universal service and to receive support for such efforts.

Moreover, as noted by the Joint Board, a technology neutral approach is clearly warranted by the concept of competitive neutrality embodied in Section 254(b)(4) of the Act and the express requirement, contained in Section 254(d), that universal service contributions be based on "equitable and nondiscriminatory" support mechanisms.<sup>44</sup> Technological neutrality serves the public interest and the broad goals of the 1996 Act by permitting market forces, rather than regulatory requirements, to shape the direction of the telecommunications industry.<sup>45</sup> In addition, universal service support mechanisms that are technologically neutral evidence a recognition of the highly dynamic nature of telecommunications innovations and avoid unwarranted endorsement of products and services that may soon become obsolete. Consistent with these principles, it is essential that the universal service rules and policies be sufficiently flexible to recognize the contributions of wireless carriers in providing universal service and to allow wireless operators to be eligible to receive universal service funds.

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<sup>44</sup> See *Recommended Decision*, ¶ 23; see also 47 U.S.C. §§ 254(b)(4), (d) (1996).

<sup>45</sup> Congress's primary objective in enacting the Telecommunications Act of 1996 was to establish "a pro-competitive, de-regulatory national policy framework" for the telecommunications industry. *Joint Explanatory Statement*, at 1; see also *Recommended Decision*, ¶ 23.

**VI. THE METHODOLOGY FOR DETERMINING THE PAYMENTS BY  
"ALL TELECOMMUNICATIONS CARRIERS" INTO THE UNIVERSAL  
SERVICE FUND SHOULD BE COMPETITIVELY NEUTRAL**

**A. All Telecommunications Carriers That Provide Interstate Services  
Must Contribute To the Universal Service Fund**

Motorola concurs in the recommendations of the Joint Board and numerous commenters that all telecommunications carriers providing interstate services contribute to universal service support mechanisms.<sup>46</sup> As the Joint Board correctly notes, Section 254 of the 1996 Act requires that "[e]very telecommunications carrier that provides interstate telecommunications services" make an "equitable and nondiscriminatory" contribution to universal support mechanisms.<sup>47</sup> Further, Motorola endorses the Joint Board's finding that broad participation is required to promote a competitively neutral funding mechanism that avoids imposing a disproportionate burden on a particular carrier or industry segment. Similarly, commenters such as the National Cable Television Association ("NCTA") and Sprint Corporation recognize that broad participation will help allocate the burden of universal service fund contributions among competitors in an equitable fashion, thereby reducing the opportunity for discriminatory treatment.<sup>48</sup>

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<sup>46</sup> See *Recommended Decision*, ¶ 784; see also Comments of the Competitive Telecommunications Association, at 6-8; Comments of the National Cable Television Association, Inc. ("NCTA"), at 13-14; Comments of Sprint, at 6-7.

<sup>47</sup> 47 U.S.C. § 254(d) (1996).

<sup>48</sup> See Comments of NCTA, at 13-14; Comments of Sprint, at 6-7.

**B. The Commission Should Ensure That Any Contribution Methodology Is Competitively Neutral and Considers the Issues Raised By CMRS Providers**

Motorola submits that a universal service contribution mechanism should be sufficient to guarantee that consumers have access to affordable telecommunications services while concomitantly ensuring that wireless providers are not placed at a competitive disadvantage vis-a-vis wireline operators. Consistent with this suggestion, the Joint Board expressly acknowledges the importance of "competitive neutrality" in establishing and applying universal service funding mechanisms, and recommends that the Commission recognize such a principle in accordance with the statutory requirements of Section 254(b)(7).<sup>49</sup> Motorola urges the Commission to consider the competitive implications of proposals regarding the following issues: (1) how universal service contributions are determined; (2) the proportionality of carrier contributions; and (3) the participation of CMRS providers in state universal service funding programs.

The record clearly demonstrates that the method used to calculate contributions to the universal service fund will have considerable competitive implications. For example, the Broadband PCS Alliance of the Personal Communications Industry Association and APC explain that contribution proposals based on gross revenues may impede competition by disproportionately burdening new entrants that rely on revenues to complete network construction and by requiring CMRS providers to establish costly, new revenue classification

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<sup>49</sup> *Recommended Decision*, ¶ 23.

procedures.<sup>50</sup> In contrast, they and others argue, objective methods, such as line-based methods, would impose equivalent burdens on all carriers and reduce the opportunity for problems associated with allocating revenues.<sup>51</sup> Paging and messaging service providers, while generally supporting a revenue-based approach, likewise emphasize the importance of designing a contribution methodology that will equitably apportion the burden among all carriers and services.<sup>52</sup> In light of the nature and extent of the commenters' concerns, Motorola urges the Commission to evaluate carefully the competitive aspects of the Joint Board's recommended contribution mechanism, particularly with respect to any requirement that may detrimentally impact the ability of CMRS providers to compete effectively with wireline services.

In addition, the opening comments underscore the critical need for the Commission to take into account the competitive implications of requiring all telecommunications carriers to

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<sup>50</sup> See Comments of the Broadband PCS Alliance of the Personal Communications Industry Association ("PCIA Broadband PCS Alliance"), at 2-4; Comments of APC, at 8-9. See also Comments of Aerial Communications, Inc., at 4-5; Comments of Sprint PCS, at 9-10. In addition, Bell Atlantic Nynex Mobile notes that a gross revenue less net payments to other carriers approach would disadvantage carriers that provide service predominately over their own facilities because they would essentially contribute based upon gross revenues while resellers would pay on a basis approximating their profit margin. Comments of Bell Atlantic Nynex Mobile, Inc., at 10-11.

<sup>51</sup> See, e.g., Comments of PCIA Broadband PCS Alliance, at 3 ("line-based" method); Comments of APC, at 7 ("line-based" or "subscriber-based" method) cf. Comments of Bell Atlantic Nynex Mobile, Inc., at 10-11 ("retail-revenue" method). In the event that the Commission does adopt a revenue-based approach, the Broadband PCS Alliance asserts that contributions to a federal universal support fund should be based only on interstate revenues. Comments of the PCIA Broadband PCS Alliance, at 5.

<sup>52</sup> See, e.g., Comments of the Paging and Narrowband PCS Alliance of the Personal Communications Industry Association ("PCIA Narrowband PCS Alliance"), at 6-9; Comments of Paging Network, Inc. ("PageNet"), at 13-15.

contribute at the same assessment rate, regardless of their eligibility to receive universal service funds. For example, Arch Communications Group, Inc. and Paging Network, Inc. argue that requiring all carriers to contribute at the same rate will distort competition between "full service" telecommunications providers and messaging providers, which are ineligible to receive support payments because they cannot provide all of the requisite "core services."<sup>53</sup> These commenters and other paging service providers contend that such an approach is not "competitively neutral" because it requires messaging providers to support, at the same level as all other carriers, a fund that other entities may use to support services that compete with paging.<sup>54</sup> Therefore, paging operators uniformly urge the Commission to reject such an approach and to adopt instead a formula that reduces an ineligible carrier's support assessment by a fixed percentage, based on how few "core services" the paging provider offers.<sup>55</sup>

Motorola further urges the Commission to consider the implications of the Joint Board's conclusion that CMRS providers can be required to contribute to state universal service funding programs. The opening comments filed by wireless operators reflect uniform opposition to this conclusion, with widespread agreement that such a finding is beyond the Joint Board's authority and contrary to the mandate of Section 332(c).<sup>56</sup> For example, PCIA

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<sup>53</sup> Comments of Arch Communications Group, Inc. ("Arch"), at 3-6; Comments of PageNet, at 10-13.

<sup>54</sup> Comments of Arch, at 4; Comments of PageNet, at 11-12.

<sup>55</sup> See Comments of Arch, at 5; Comments of Celpage, Inc., at 10; Comments of the PCIA Narrowband PCS Alliance, at 6; Comments of PageMart, at 8; Comments of PageNet, at 12-13.

<sup>56</sup> Comments of Airtouch, at 30-34; Comments of APC, at 10-13; Comments of Bell Atlantic Nynex Mobile, Inc., at 2-5; Comments of CTIA, at 13-16; Comments of Nextel, at 3-5; Comments of PageNet, at 5-10; Comments of PCIA, at 31-33.

asserts that the Joint Board's conclusion regarding participation in state funding mechanisms "ignores the plain language of Section 332(c)(3)" and applicable Commission precedent concerning the authority of states to regulate CMRS services.<sup>57</sup> PCIA and other commenters point out that CMRS providers may be subject to state universal service funding obligations under Section 332 only at such time as "they become a substantial substitute for landline telephone services throughout a state."<sup>58</sup> In line with this reasoning, wireless service providers generally urge the Commission to reject the conclusion of the Joint Board, and require that CMRS providers contribute only to a federal universal service fund.<sup>59</sup>

In sum, Motorola suggests that, in order to establish a "competitively neutral" funding mechanism, the Commission must consider the impact of the Joint Board's recommendations regarding contribution methods in light of the issues raised by CMRS providers and other parties. As detailed above, the record demonstrates that contribution schemes have a potentially significant impact on the competitive balance between wireless and other service providers. Therefore, the Commission should establish a contribution method that ensures equitable treatment of all competitors and promotes continued competition between wireless and wireline telecommunications services.

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<sup>57</sup> Comments of PCIA, at 32.

<sup>58</sup> *Id.* See also Comments of APC, at 12; Comments of CTIA, at 15.

<sup>59</sup> See, e.g., Comments of APC, at 12-13; Comments of Celpage, Inc., at 8; Comments of PCIA, at 33.

## VII. CONCLUSION

As the foregoing discussion demonstrates, wireless telecommunications services offer an efficient, capable, and cost effective alternative for meeting Congress's universal service goals and for ensuring that all Americans, especially those in remote regions, and all elementary and secondary classrooms, have affordable access to advanced telecommunications offerings. To ensure that the potential of wireless offerings in contributing to these objectives is fully realized, Motorola urges the Commission to formulate universal service policies that expressly recognize the existing and future role of wireless services, products, and equipment, and to ensure that the universal service mechanisms are applied in a competitively and technology neutral manner.

Respectfully submitted,

**Motorola, Inc.**

By: Mary E. Brooner  
Mary E. Brooner  
Manager, Telecommunications Strategy and  
Regulation  
Motorola, Inc.  
1350 I Street, N.W., Suite 400  
Washington, D.C. 20005  
(202) 371-6900

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